Exhibit R-2, RDT&E Budget Item Justification								**DATE:** February 2000		
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/05					**R-1 ITEM NOMENCLATURE** PE0604764K/Advance Information Technology Services Joint Program Office (AITS-JPO)					
COST (in millions)		FY99	FY00	FY01	FY02	FY03	FY04	FY05	Cost to Complete	Total Cost
Leading Edge Pilot Info Tech/T26		15.109	14.370	14.685	14.573	14.449	14.513	14.682	Contg	Contg

A. Mission Description & Budget Item Justification: The Advanced Information Technology Services Joint Program Office (AITS-JPO), a joint DARPA/DISA office, facilitates the transition of DARPA's substantial information systems technology research into DISA's operational support of the warfighter. The AITS-JPO, among other functions: a) provides advanced technology demonstrations and collaboration capabilities for R&D and Battle Lab communities; b) engineers and reinforces components for leave-behind and transition into the Global Information Grid (GIG)/Defense Information Infrastructure (DII), including the Global Command and Control Systems (GCCS) and Global Combat Support Systems (GCSS); c) augments transitioning products with improved security, scalability, and GIG/DII compliance; and d) provides advanced, hardened capabilities (Leading Edge Services) to select operational beta test sites. As a result, this program element is under Budget Activity 5. Leading Edge Services are information transport and value added services not available from the DII and for which customers are willing to assume some of the risk associated with development and initial deployment. These services include information processing, storage, and retrieval; communications (voice, data, video, multimedia); and security technology and application in command, control, and intelligence, and combat support for the worldwide DOD communities.

FY 1999 Accomplishments:

- o Developed, hardened and transitioned an initial capability for rapid Courses of Action/Time-Phased Force Deployment Data (COA/TPFDD), TPFDD/OPLAN readiness and distributed assessment for GCCS 3.0 stage 2 with a focus on Joint Staff Joint Operating Planning and Execution System/Crises Action Planning and Execution (JOPES/CAPE) reengineering (2^{nd}Qtr - 4^{th}Qtr; $2,664K).
- o Demonstrated integrated web-based collaboration, logistics Common Operational Picture (COP) initial enhancements and synchronized log planning for GCSS. Supported the transition of Joint Logistics Advanced Concept Technical Demonstration (ACTD) to Advanced Common Operating Environment (COE)/GCSS Infrastructure (2^{nd}Qtr - 4^{th}Qtr; $2,864K).

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- o Developed an advanced information environment for the DII COE which permitted plug and play introduction of new capabilities, information sharing and collaboration across diverse networks in support of joint planning and execution (3rdQtr - 4thQtr; $1,564K).
- o Prototyped and evaluated high-performance, secure, distributed Common Object Request Broker Architecture (CORBA) services implementation and established pilot services for integrating broadcast and conventional webs (e.g., Intelink, SIPRnet, ATM nets) (3rdQtr - 4thQtr; $2,225K).
- o Provided an enhanced common operational picture, which included broadcast COP, multimedia & video services, reach-back archiving & C4I systems integration with Information Dissemination Management (IDM) services (3rdQtr - 4thQtr; $2,264K).
- o Fielded tools for continuous collaborative plan and workflow management, achieving quantum improvement in the distributed planning and assessment capabilities offered in Common Operating Modeling Planning and Simulation Strategy (COMPASS); and evaluated the initial Joint Continuous Strike Element (JCSE) ACTD products for transition to multiple service systems (2ndQtr - 4thQtr; $1,564K).
- o Provided the basis for integrating C3I and simulation applications through the object and multicast infrastructure (2ndQtr - 4thQtr; $1,964K).
- o Total $15.109M

FY 2000 Plans:

- o Provide initial DII/COE-compliant capability for distributed courses of action development, deployment/employment visualization, and analysis interacting between GCCS and modeling and simulation sites (2ndQtr - 3rdQtr; $3,139K).
- o Transition Joint Logistics ACTD Joint Decision Support Toolkit into GCSS and provide augmentation to GCSS mediated data services and visualization (including COP)to support them (2ndQtr - 4thQtr; $2,539K).

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- o Demonstrate integration of the U.S. Imagery and Geospatial Architecture into DII COE systems using end-to-end object services and video archive services(2^{nd} Qtr - 4^{th} Qtr; $2,345K).
- o Provide a collaborative virtual workspace capability for the DII COE based on DARPA and other emerging tools (2^{nd}Qtr - 4^{th}Qtr; $2,246K).
- o Continue transition of JCSE ACTD Joint Targeting products as appropriate (2^{nd}Qtr - 4^{th}Qtr; $182K).
- o Provide an initial capability for use by GCCS of IDM services coupled with an adaptive network capability in the DISN (2^{nd} Qtr – 3^{rd} Qtr; $397K).
- o Develop, harden, and demonstrate advance infrastructure and information assurance services to support a secure, adaptive Joint Force Information Environment (2^{nd}Qtr – 3^{rd}Qtr; $3,522K).
- o Total $14.370M

FY 2001 Plans:

- o Initial transition to GCCS execution monitoring and continuous real-time assessment using products from the Adaptive Course of Action (ACOA) ACTD, and other relevant DARPA and Service technology (2^{nd}Qtr - 4^{th}Qtr; $2,905K).
- o Incorporate DARPA analysis tools into the Integrated Intelligence and Imagery Database (I3DB) component of GCCS and other C2 systems (2^{nd}Qtr - 4^{th}Qtr; $1,923K).
- o Integrate knowledge-based product access and dissemination (geospatial, intelligence, plans)with IDM services (2^{nd}Qtr - 3^{rd}Qtr; $940K).
- o Complete integration of Joint Logistics products and other DARPA combat support tools into GCSS (2^{nd}Qtr - 4^{th}Qtr; $940K).
- o Provide a capability for extensive functional integration between the operational planning functions of the GCCS and the development/assessment of the combat support plan (2^{nd} Qtr - 4^{th} Qtr; $1,960K).
- o Transition an upgraded collaborative workspace and advanced shared applications that increases interaction between C4I systems, combat support systems and modeling and simulation anchor desks (2^{nd} Qtr - 4^{th} Qtr; $1,923K).

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- o Transition a cost-effective capability to support dynamic quality of services enclaves and information release to coalition forces (2nd Qtr - 4th Qtr; $1,235K).
- o Provide enhanced GCCS and GCSS applications coupling to an optimized IDM and global networked architecture (2nd Qtr - 4th Qtr; $1,922K).
- o Initial transition of products from the DARPA Information Assurance program and other IA technology into DII infrastructure, including intrusion detection and guards (2nd Qtr - 4th Qtr; $937K).
- o Total $14.685M

B. Program Change Summary

	FY99	FY00	FY01
Previous President's Budget (FY 2000)	15.179	15.172	15.075
Appropriated Value	15.588	15.172	
Adjustments to Appropriated Value	-.479	-.759	
Congressional Rescission		-.043	
Adjustments to Budget Year Since FY 2000 President's Budget			-.390
Current Budget Submit/President's Budget (FY2001)	15.109	14.370	14.685

Change Summary Explanation:

FY99 change due to undistributed congressional adjustments to Defense-wide RDT&E appropriation and below threshold reprogramming.

FY00 funding reduction used for offset to fund higher priority Departmental initiatives.

FY01 funding reduction due to revised fiscal guidance.

C. Other Program Funding Summary:

	FY99	FY00	FY01	FY02	FY03	FY04	FY05	To Complete
Operation and Maintenance:	$1.970	$2.412	$2.444	$2.252	$2.286	$2.336	$2.387	Contg

Exhibit R-2, RDT&E Budget Item Justification								**DATE:** February 2000		
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D. Acquisition Strategy: MITRE, Reston, VA; Houston Associates, Inc., SAIC, Arlington, VA and SSC, San Diego

E. Schedule Profile:

FY 1999

1st Qtr

- o Engineer and reinforce GCCS and GCSS leading edge services for operational evaluation at twice FY98 levels.
- o Augment transition products with improved security scalability and DII compliance.
- o Transition selected components of DARPA Battlefield Awareness, command and control, modeling, and simulation initiatives to LES and/or DII. Facilitate maintenance by adapting interfaces to an emerging commercial marketplace.

2nd Qtr

- o Demonstrate a process to align DARPA's C4I architecture approach with DII evolution.
- o Transition object based architecture components to the DII COE.

4th Qtr

- o Participate with the Joint C4ISR Battle Center and Federated Battle Lab in Virtual Collaboratory experiments to assist Defense Agencies and Services in integrating advanced C4I applications and technology onto the DII.
- o Complete first-year expansion of the AITS-JPO mission to a greater role in DII technology risk reduction.
- o Provide advanced information technology services for the R&D and Battle Labs Communities at twice FY98 levels (Joint communications infrastructure synchronization and Federated Battle Lab Network.)
- o Engineer and reinforce GCCS and GCSS enhancements.
- o Complete transition of advance joint planning ACTD components into GCCS.

FY 2000

- o Continue transition of components of DARPA technology programs to DII.
- o Expand transitions to include integration of technology from other Services and Agencies as appropriate.

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FY 2000 Continued

2nd Qtr

- Distributed planning/analysis capability to GCCS.
- Initial Logistics Joint Decision Support tools COE-compliant with and operating with GCCS/GCSS.
- Collaboration toolkit for DII COE.

3rd Qtr

- Information Dissemination Management services into GCCS, DII COE and DISN.
- Continue Battle Lab experiments with advance information infrastructure and infosec components.

4th Qtr

- Complete transition of Battlefield Awareness Data Dissemination (BADD) ACTD components to GCCS imagery and intelligent database segments, and Geospatial information systems.
- Complete integration of Joint Logistics ACTD tools to GCCS/GCSS.
- Continue Battle Lab experiments with advanced information infrastructure and infosec components.

FY 2001

1st Qtr

- Continue integration and transition of components of DARPA's, Services' and Agencies' technology programs to GIG and DII aligned with GIG/DII software releases.
- Continue to develop joint and coalition interoperability capabilities in accordance with Joint Staff priorities, available technologies, and GIG Strategic Plans.

2nd Qtr

- GCCS integrated collaboration and plan execution monitoring capability.
- Integrated Intelligence and Imagery Database (I3DB) components and product access via IDM services.

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FY 2001 Continued

- o Continue sustained support of leading edge deployed capabilities until they are fully transitioned.
- o Continue Battle Lab experiments, including Ops/Combat support integration between GCCS, GCSS,and Service systems

3rd Qtr

- o Demonstrate integrated enterprise management for network, IDM and IA components to achieve optimized information infrastructure quality of service management.
- o Deliver automated watchboard capabilities to GCCS/GCSS for execution monitoring.
- o Continue sustained support of leading edge deployed capabilities until they are fully transitioned.
- o Continue Battle Lab experiments, including Ops/Combat support integration between GCCS, GCSS, DII COE, DISN, and service systems.

4th Qtr

- o Collaboration and coalition information assurance transitions.
- o Demonstrate advanced knowledge-based decision-making and visualization capabilities for integrated GCCS/GCSS.
- o Initial capability for collaborative Joint COP Coordination.
- o Continue sustained support of leading edge deployed capabilities until they are fully transitioned.
- o Continue Battle Lab experiments, including Ops/Combat support integration between GCCS, GCSS, and Service systems.

FY 2002-2005

- o Continue integration and transition of components of DARPA’s, Services’ and Agencies’ technology programs to GIG/DII aligned with DII software releases.
- o Continue sustained support of leading edge deployed capabilities until they are fully transitioned.
- o Continue Battle Lab experiments, including Ops/Combat/Intell support integration between GCCS, GCSS, and Service systems.

Exhibit R-3 Cost Analysis		**DATE:** February 2000
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/05	**PROGRAM ELEMENT** Advance Information Technology Services Joint Program Office (AITS-JPO)/PE0604764K	**PROJECT NAME AND NUMBER** Leading Edge Pilot Information Technology/T26

Cost Category Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Engineering/technical services										
	C-CPAF	HAI, Arlington, VA	3.222	3.813	Dec 99	4.258	Dec 00	Contg	Contg	11.293
	C-CPAF	SAIC,Arlington, VA	1.645	3.072	Dec 99	2.481	Dec 00	Contg	Contg	7.198
	MIPR	SSC, San Diego,CA	1.948	1.255	Dec 99	2.162	Nov 00	Contg	Contg	5.365
	MIPR	SSC, Charleston, SC	1.050	1.195	Dec 99	1.195	Dec 00	Contg	Contg	3.440
All other Contracts			4.189	3.420	Dec 99	1.534	Dec 00	Contg	Contg	N/A
Systems Engineering										
	C-CPAF	MITRE, Arlington VA	3.055	1.615	Nov 99	3.055	Nov 00	Contg	Contg	7.725
TOTAL			15.109	14.370		14.685				